

**Research Activity Panel Meeting Summary**  
Chris Harrold, Monterey Bay Aquarium, RAP Chair

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**APRIL 2003 RAP MEETING**

**Host: California Department of Fish and Game**  
**Marine Pollution Laboratory**  
**Friday, April 11, 2003 9am to 12pm**

In Attendance:

Members:

Chris Harrold, Monterey Bay Aquarium  
Andrew DeVogelaere, MBNMS, RAP Coordinator  
Greg Cailliet, MLML  
Mary Yoklavich, NOAA/NMFS  
Mark Carr, UCSC  
Michael Field, USGS  
Jan Roletto, GFNMS/CBNMS  
Leslie Rosenfield, NPS  
Rick Starr, UC Sea Grant  
Francisco Chavez, MBARI  
Aaron King, MPA Center  
Mark Stephenson, CDFG/Mar. Pollution Studies Lab  
Jim Harvey, MLML  
Gary Sharp, Center for Climate/Ocean Resources Study  
Rebecca Goldman, ESNERR

Guests:

Jennifer Parkin, MBNMS  
Steve Lonhart, MBNMS  
Jean de Marignac, MBNMS  
Chris Coburn, MBNMS  
Holly Price, MBNMS  
John Hunt, UCD, Granite Canyon, Marine Pollution Lab  
Kenneth Coale, MLML  
Sean Van Sommeran, Pelagic Shark Research Foundation  
Scott Lucas, Pelagic Shark Research Foundation  
Callaghan Fritz-Cope, Pelagic Shark Research Foundation  
Amy Palmer, MLML/CDFG  
Baldo Marinovic, UCSC/CIMT  
Dave Ebert/MLML  
Tonatiuh Trejo, MLML  
Donna Kline, MLML

## **PRESENTATIONS**

### **Institutional Update: CDFG, Marine Pollution Laboratory (Mark Stephenson and John Hunt)**

As an introduction, Kenneth Coale gave a brief presentation on Moss Landing Marine Labs affiliates, which included the Marine Pollution Laboratory and stated that this is the oldest affiliation of the marine lab. This program has three facilities: Moss Landing, Granite Canyon, and Sacramento Pesticides Lab (where organics are tested). Mark described several ongoing projects mainly taking place out of the Moss Landing laboratory, including the Mercury Project. The ultimate goal of this project is for the Marine Pollution Lab to make recommendations to CALFED on how to lower concentrations of mercury in sports fish in the delta area. One problem noted was that wetlands are being restored to their original state and this causes an increase in methyl mercury (an anaerobic process) that is taken up easier by fishes. The Marine Pollution Lab has been funded to find out what the uptake is and how much is passing back and forth through the system. Other projects include: the Coastal Fish Contaminant Project, a coastal collection program to monitor pollutant concentrations in fish off the entire California coast; SWAMP, is a statewide program for monitoring water quality inland; and Mussel Watch, the statewide monitoring of metals and pesticides in mussels, these data are used to determine spatial and temporal trends in contaminants.

John Hunt gave a brief overview of the projects mainly taking place at Granite Canyon. The primary goal at Granite Canyon is to determine the biological effects of non-point source contaminants in watersheds, estuaries and coastal waters. Some examples of their work include: tributary base sampling, relating toxicity to in-situ and ecological effects, relationship of pesticide applications and in-stream effects, and testing above and below stream of best management farming practices to determine how non-point source pollution is effecting sanctuary waters. They are analyzing the data collected for the Sanctuary's First Flush Monitoring Program.

### **Center for Integrated Marine Technology (Baldo Marinovic)**

This program is a consortium of research partners within Monterey Bay: UCSC, NMFS, MBNMS, MBARI, MLML, and NPS. The goal is to combine emerging technologies and data integration approaches to determine the process underlying the dynamics of the coastal upwelling ecosystem along the California coast. It is funded through NOAA. The various components of CIMT include shipboard observation, remote sensing, modeling, moorings, HF radars, and data management – visualization. Baldo gave a brief description of each of these components and wrapped it up by stating that this is a key way to integrate technology around the bay.

### **Pelagic Shark Research Foundation (Sean Van Sommeran)**

Currently there are three long-term on-going monitoring programs that occur: an elasmobranch study in Elkhorn Slough, a pelagic shark study in Monterey Bay, and the Great White Shark project at Ano Nuevo Island. The Foundation began in 1990 as a subgroup of Earth Island

Institute and still holds to the active advocacy role. They also have a collecting and stranding unit and are involved with several educational programs including Upward Bound and Merito. They have been on Discovery Channel's Shark Week programs. All of their projects are mainly tag and release projects. Their main goal in Elkhorn Slough is to map out the entire slough to understand the primary use areas for sharks, especially for juvenile shark areas that could be considered sensitive areas. The offshore and White Shark projects entail tagging, Blue, Mako, Great Whites, and other pelagic shark species to determine where they go. Finally, they are very concerned about the illegal hunting of sharks for fins etc. and they are trying to determine methods to stop or prevent this terrible poaching.

## **DISCUSSIONS**

### **Follow-up on Ecopath Model Proposal (Jim Harvey)**

Review of what an ecopath model is: Ecopath modeling is a snapshot of flows through an ecosystem. This could be used as a potential process to develop an ecosystem function model for Monterey Bay. Also, it could be used to determine holes in data sets, integrated into a predictive model to help people in management decisions, as an educational tool, and to enhance collaboration with other fields of science (oceanographers, physicists, zoologists, etc.). Ecopath modeling has a great potential for disseminating a lot of information to a lot of different people (educators, the public, scientists).

*This presentation was made to the RAP at the February meeting to assess if the group saw value in developing this for the Monterey Bay/Sanctuary region. The RAP was generally supportive of this initiative, recognizing both the shortcomings of the modeling approach and its strengths. However, Jim and Tom would like input about the level of interest there is. For more information please email them at: [t.okey@fisheries.ubc.ca](mailto:t.okey@fisheries.ubc.ca) and [Harvey@mlml.calstate.edu](mailto:Harvey@mlml.calstate.edu).*

Jim updated the RAP on the fact that there were not a lot of responses but those he had received were positive. He would like some input on this now. When they have some people who have data that they would like to plug into the model, then they will solicit more people for more information. Then when they test this they will write a proposal with these collaborations in mind. Jim is looking for funding mainly outside of the Sanctuary.

*The RAP decided to continue getting updates from Jim or Tom.*

## **INFORMATION ITEMS**

### **OCEAN.US Coastal Observing Systems Workshop (Francisco Chavez)**

Francisco Chavez attended the IOUS summit meeting in Washington D.C. on March 31 through April 1, 2003. He gave a brief description of the goals of this meeting. Goal 1) to organize a series of regional associations to have a system across the United States that is doing ocean observations. Goal 2) to convince Congress that these regional associations exist and will need funding from the government. One suggestion given was to form an Ad-Hoc Committee to find out what institutions are interested in this and to write a grant proposal. Another question needing resolution is to determine how many regions should be on the West Coast (the area

covering Southern California up to the Canadian border). One suggestion is three regions (Southern California, Pt. Conception to Mendocino, and Mendocino to the Canadian border).

*RAP would like to have a longer update and discussion about this at a later time.*

### **JMPR Update (Holly Price and Andrew DeVogelaere)**

Topics of interest to the RAP are: Benthic Habitats – the working group is identifying vulnerable habitats and listing a suite of direct and indirect impacts of trawling etc. Marine Protected Areas – the goal is to maintain the natural biological communities by conserving the habitats and ecosystems within the protected areas. This is not fishery management. Would like coordination with the SIMoN program to distribute information to decision makers, fishermen, and the public. Introduced Species – potential impacts have been identified, have come up with pathways of introduction and now need to engage preventative methods and educational programs. Davidson Seamount – is of national significance if it meets certain criteria. It is the best described seamount and it is of scientific significance. Would like to protect it before it becomes a more popular spot and animals become threatened. There was discussion about the utility, need and importance of including the Davidson seamount in the Sanctuary boundaries.

*The RAP wants more input on the JMPR process as it moves forward. May want to spend a good portion of May's meeting on this mainly because the research is important because it will become the research plan for the Sanctuary for the next 5 to 10 years.*

### **Debriefing on Sanctuary Currents 2003 (Jennifer Parkin)**

Over 350 people attended the symposium, and more people from the general public attended than in the past. Presentations ranged from jellyfish in the Monterey Bay, leatherback turtles, California sea otters, snowy plovers, and krill followed by an update on the JMPR process. More than 30 research posters and 25 exhibits complemented the lectures. Artist Kirsten Carlson was on hand to sign the two newly released posters she designed. Dr. James Estes gave a great Ed Ricketts Memorial Lecture on the loss of large vertebrates from the ocean food webs and the complicated effects this has on ecosystems. The day ended with a reception and awards ceremony honoring those who have contributed significantly to the Sanctuary's mission in the past year.

*RAP would like to appoint someone to the planning committee for next years Sanctuary Currents.*